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for levitatingly supporting said rotor with said stator, the disk refiner further comprising a first linear actuator means for selectively moving said third refiner plate along said longitudinal axis toward and away from said first refiner plate and a second linear actuator means for selectively moving said fourth refiner plate along said longitudinal axis toward and away from said second refiner plate.

✓Please cancel claims 18 and 22.

Please add claims 50-55 as follows:

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50. A paper pulp processing apparatus comprising a motor having a stationary member and a rotatable drive member having conical ends, a rotatable pulp processing component carried by said rotatable drive member, and bearings supporting the conical ends of said rotatable drive member and said rotatable pulp processing component, said bearings controlling axial and radial movement of said rotatable drive member relative to said stationary member.

51. A paper pulp processing apparatus comprising a variable speed motor having a stator and a rotor having conical ends rotatably disposed along a longitudinal axis within said stator, a rotatable pulp processing component carried by said rotor, and magnetic bearings supporting the conical ends of said rotor and said rotatable pulp processing component and controlling axial and radial movement of said rotatable pulp processing component relative to said stator.

52. A disk refiner comprising a switched reluctance motor comprising a stator and a rotor having conical ends rotatably disposed along a longitudinal axis within said stator, said rotor carrying a refiner plate, a second refiner plate positioned along said longitudinal axis and adjacent said first refiner plate, and magnetic bearings operatively associated with said stator and rotor for supporting the conical ends of said rotor, and controlling axial and radial movement of the rotor.

53. A disk refiner comprising a switched reluctance motor comprising a stator and a rotor having conical ends rotatably disposed along a longitudinal axis within said stator, said rotor having a first end carrying a first refiner plate and a second end carrying a second refiner plate, a first end plate spaced axially from said first refiner plate and a second end plate spaced

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axially from said second refiner plate with said first and second end plates and said stator defining an enclosed housing, a third refiner plate mounted on said first end plate and axially spaced from said first refiner plate, a fourth refiner plate mounted on said second end plate and axially spaced from said second refiner plate, and magnetic bearings operatively associated with said stator and rotor for levitatingly supporting the conical ends of said rotor with said stator and for controlling axial and radial movement of the rotor.

54. In a method of processing a pulp suspension wherein a rotatable pulp processing component is brought into contact with said pulp, the improvement comprising:

- a.) providing a variable speed motor having a stationary member and a rotatable drive member;
- b.) combining said rotatable pulp processing component

and

- said rotatable drive member into an integral unit; and
- c.) providing bearings along said rotatable pulp processing component and said rotatable drive member to support conical ends of said rotatable drive member within said stationary member, and controlling axial and radial movement of said pulp processing component relative to said stationary member by said bearings.

55. In a method of processing a pulp suspension wherein a rotatable pulp processing component is brought into contact with said pulp, the improvement comprising:

- a.) providing a variable speed motor having a stator and a rotor rotatably mounted along a longitudinal axis within said stator;
- b.) combining said rotatable pulp processing component and said rotor along a common shaft; and
- c.) providing magnetic bearings along said common shaft and said stator to support both said rotatable pulp processing equipment and conical ends of said rotor and control axial and radial movement of said rotatable pulp processing component relative to said stator.